

What is claimed is

1. An ophthalmic device comprising a polymer and ionized silver in an initial concentration of at least about 10 ppm, wherein said ophthalmic device has a haze of less than about 200% and said silver releases from said ophthalmic device during use at rate with a rate constant, calculated using a first order kinetics equation, of up to about 1 days<sup>-1</sup>.
2. The ophthalmic device of claim 1 wherein said rate constant is between about 0.001 and about 0.5 days<sup>-1</sup>.
3. The ophthalmic device of claim 1 wherein said rate constant is between about 0.01 and about 0.3 days<sup>-1</sup>.
4. The ophthalmic device of claim 1 wherein said rate constant is between about 0.001 and about 0.2 days<sup>-1</sup>.
5. The ophthalmic device of claim 1 wherein said initial silver concentration is between about 10 and about 10,000 ppm.
6. The ophthalmic device of claim 1 wherein said initial silver concentration is between about 25 and about 5,000 ppm.
7. The ophthalmic device of claim 1 wherein said initial silver concentration is between about 50 and about 3,000 ppm.
8. The ophthalmic device of claim 1 wherein said initial silver concentration and rate constant are sufficient to provide an at least about 50% reduction in microbial activity over said device's use.
9. The ophthalmic device of claim 1 wherein said ophthalmic device is a contact lens.

10. The contact lens of claim 9 wherein said initial silver concentration and rate constant are maintained below amounts which would cause argyria.
11. The contact lens of claim 9 wherein after about a day said silver releases  
5 from said ophthalmic device during use at a rate with a rate constant ,  
calculated using a first order kinetics equation of up to about  $1 \text{ day}^{-1}$ .
12. The contact lens of claim 9 is substantially free from visible haze.
- 10 13. The contact lens of claim 9 having less than 150% haze.
14. The contact lens of claim 9 having less than 100% haze.
15. The ophthalmic device of claim 1 wherein said polymer further comprises a  
15 ligand to which said silver is releasably bound.
16. The ophthalmic device of claim 1 wherein said ophthalmic device is a  
contact lens and said initial silver concentration and rate constant are sufficient  
to provide an at least about 50% reduction in microbial activity over said  
20 device's use.
17. The contact lens of claim 9 wherein said use is continuous wear for at  
least 14 days.
- 25 18. The contact lens of claim 9 wherein said use is continuous wear for at  
least 30 days.
19. The contact lens of claim 9 wherein said silver releases from said contact  
lens during use in an amount sufficient to provide at least a 70% reduction in  
30 bacterial activity over said use.

20. The contact lens of claim 9 wherein said silver releases from said contact lens during use in an amount sufficient to provide at least a 90% reduction in bacterial activity over said use.
- 5 21. The ophthalmic device of claim 1 wherein said silver releasing compound has a molar solubility of silver ion in pure water of about 25°C of about  $2.0 \times 10^{-30}$  moles/L to about 2 moles/L.
22. The ophthalmic device of claim 1 wherein said silver releasing compound  
10 has a molar solubility of silver ion in pure water of greater than about  $2.0 \times 10^{-17}$  moles/L.
23. The contact lens of claim 9 wherein said polymer comprises a silicone hydrogel.
- 15 24. The contact lens of claim 9 wherein said silicone hydrogel is selected from the group consisting of senofilcon A, galyfilcon A, lotrafilcon A and balafilcon A.
25. The ophthalmic device of claim 1 wherein said polymer is formed from a  
20 reaction mixture comprising at least one silicone-containing component.
26. The ophthalmic device of claim 1 wherein said reaction mixture further comprises at least one hydrophilic component.
- 25 27. The ophthalmic device of claim 1 wherein said ophthalmic device is coated.
28. The contact lens of claim 9 wherein said polymer is formed from a reaction mixture comprising at least one silicone-containing component.
- 30 29. The contact lens of claim 9 wherein said reaction mixture further comprises at least one hydrophilic component.
30. The contact lens of claim 9 wherein said ophthalmic device is coated.

31. The contact lens of claim 9, wherein said lens displays a reduction in microbial colonization of at least about 2 log after two days.

5 32. The contact lens of claim 9, wherein said lens displays a reduction in microbial colonization of at least about 1 log after two days.

33. The contact lens of claim 9, wherein said lens displays a reduction in microbial colonization of at least about 2 log after 10 days.

10

34. The contact lens of claim 9, wherein said lens displays a reduction in microbial colonization of at least about 1 log after 10 days.

15 35. The contact lens of claim 9, wherein said lens displays a reduction in microbial colonization of at least about 05 log after 30 days.